



Transportation Librarians Roundtable

Transportation Research Thesaurus:

WSDOT Use Cases

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WSDOT

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Initial Efforts

- Agency management supported the need and request for funding.
- First product: a metadata repository produced in 2001.
- Second product: a user interface that served as a repository and provided both a list of data sets and user search tools
- Project cost: approximately \$480,000
- One employee dedicated to its management
- Search returns were still limited and a decision was made in 2003 to hire an information professional with library science skills to improve the findability of data.



From Repository to Catalog

- Change way of thinking from engineering to library science principles through education (controlled vocabularies, content-oriented metadata, indexing and cataloguing)
- Collect an accurate inventory of our dataset assets (servers, databases, tables, fields)
- Improve the quality of the metadata (develop rules, policies and procedures, introduce new metadata)

Data Catalog Interface



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Data Catalog

Home | Link | Common | Physical | Thesaurus | Glossary | Common Words | Abbreviations | Stewards | Applications | Link Software Applications | Data Classification ▶

▪ Editors and Librarians | Stewardship Roles | Status Codes | Change History | Link Synonym | DB Software | Error Log | Data Load ▶

KennedG (Librarian) | Help | Back to Edit Physical Data

Basic Search

Advanced Search

Enter Keyword(s)

Find

Business Topics

Assets

Equipment, Facilities, Information Systems, ...

Construction

Environment

Drainage Facilities

Geospatial

Geographic Area, Location Reference, Political and Administrative Areas

Management and Organization

Financial Management

Operations

Maintenance, Traffic

Persons

Person Role

Planning and Design

Project Development

Structures

Culverts and Bridges

Trafficway

Highway Safety, Traffic Data

Uncategorized

Utilities

Weights and Measures

Date and Time

Catalog Statistics as of: 1/3/2008 1:49:01 PM

Business Topics: 36

Databases: 511

Data Subjects: 281

Tables: 18,243

Data Characteristics: 1,296

Elements: 242,548

Variations: 1,174

Links: 3,424

V 3.1.6

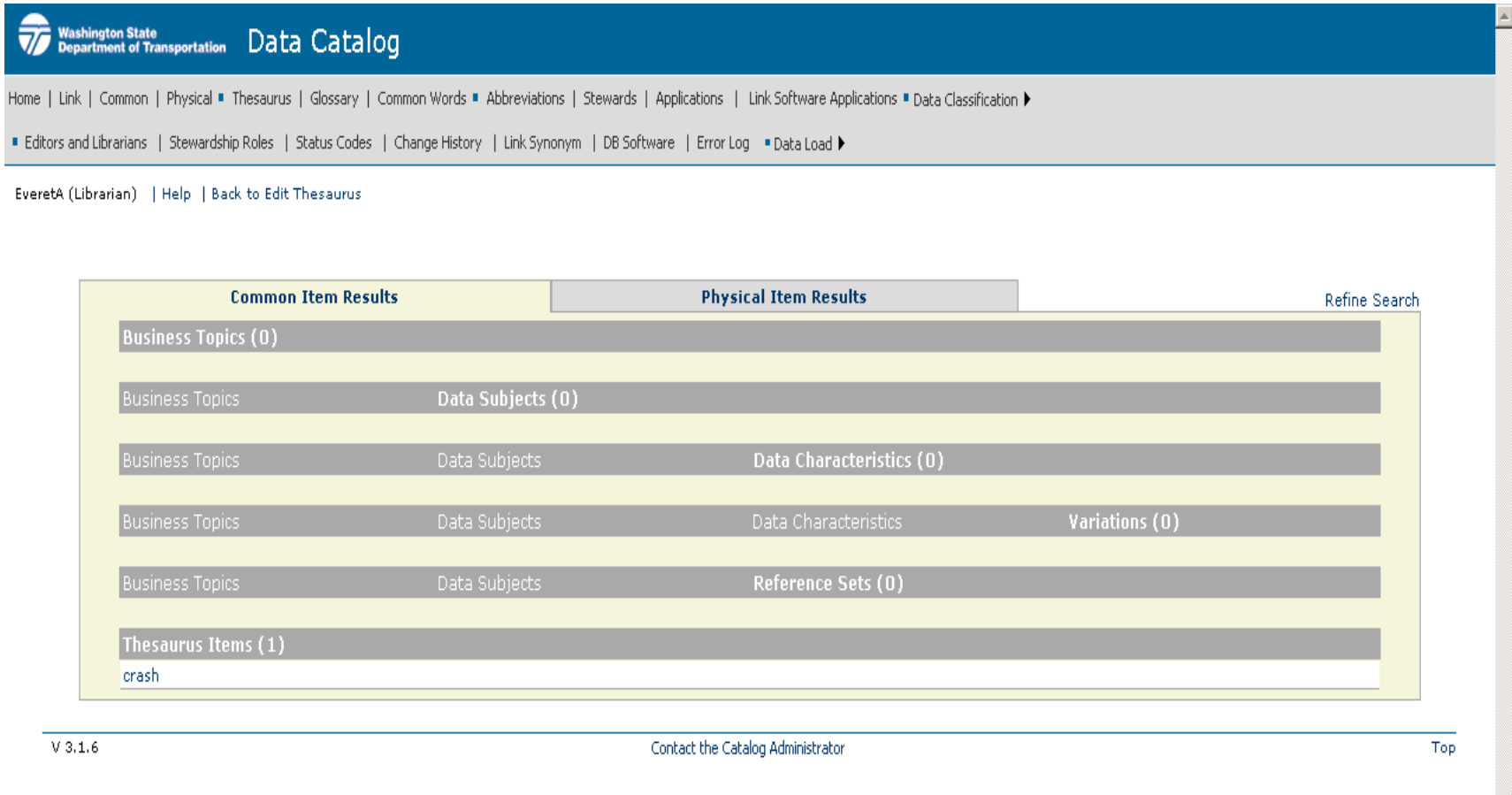
Contact the Catalog Administrator

Top



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Search common vocabulary “crash”



The screenshot shows the Washington State Department of Transportation Data Catalog interface. The search results are displayed in a table with two main sections: Common Item Results and Physical Item Results. The search term 'crash' is entered in the search bar. The results are organized into a grid with columns for Business Topics, Data Subjects, Data Characteristics, and Variations. The 'Common Item Results' section shows 1 result for 'crash' under 'Thesaurus Items'. The 'Physical Item Results' section shows 0 results for 'Business Topics', 'Data Subjects', 'Data Characteristics', and 'Variations'. A 'Refine Search' link is visible in the top right corner of the results area.

Common Item Results		Physical Item Results		Refine Search
Business Topics (0)				
Business Topics	Data Subjects (0)			
Business Topics	Data Subjects	Data Characteristics (0)		
Business Topics	Data Subjects	Data Characteristics	Variations (0)	
Business Topics	Data Subjects	Reference Sets (0)		
Thesaurus Items (1)				
crash				

V 3.1.6 [Contact the Catalog Administrator](#) [Top](#)

WSDOT Data Catalog

From “crash” to “Collision”

EveretA (Librarian) | [Help](#) | [Back to Edit Thesaurus](#)

Thesaurus

Synonyms

crash

Related Topics and Subjects

Business Topics

Highway Safety

Data Subjects

Collision

New Synonym

WSDOT Data Catalog

From “crash” to “Collision”

Data Catalog Common Elements

Business Topic New -Highway Safety	Data Characteristic New Case Number City Identifier City Number Collision Record Status Type Code Collision Report Number Collision Report Source Type Code Count	Characteristic Variation
Data Subject New Collision Collision Quality Review Type Collision Record Status Type Collision Report Source Type Collision Report Type Collision Severity Type Collision Type	Highway Safety: Collision	

Data Subject Details Link Synonym & Common Edit Reference Sets Link Common & Physical

Topic -Highway Safety *	Status Accepted
Data Subject Name Collision *	Synonym(s) Accident Accident Report crash Police Traffic Collision Report
Operational Steward Paul Snow	<input type="checkbox"/> Reference Sets
Managerial Steward	
Executive Steward Jon Bauer	
Definition An occurrence of injury or damage involving at least one Motor Vehicle or Pedalcycle for which a Police Traffic Collision Report (PTCR) or Vehicle Collision Report (VCR) is filed.	



The Data Catalog Today

- Bi-weekly automatic update maintains an inventory of OIT-managed databases (relational and mainframe).
- 500 Databases, 18,000 tables, 240,000 data elements.
- Lists physical metadata: name, type, size, precision...
- Provides a single web site to find this information.
- Simple text searches can find databases, tables, fields by name.
- Lacks common business semantics—incomplete assignment of business terms to cryptic physical names.



Other Information Organization Projects at WSDOT





Indexing Web-based Documents

■ Facts

- Currently a WSDOT pilot project involving the Library Services, Interactive Communications and Information Resource Management (OIT/IRM)
- Uses a Dublin Core–based Metadata Application Profile
- Utilizes the TRT for the Keyword Metadata Element

■ Document Types

- Research Reports
- Engineering and Operations Manuals

Indexing Web-based Documents



Washington State Department of Transportation

News | Contact WSDOT | WSDOT Home

Traffic & Roads | Projects | Business | Environment | Maps & Data

Search **Research Reports** text size: T T T

Research Reports Index

Search Research Reports

667.1: PCCP Texture Modification Using the Skidabrader

[Abstract](#) [Full Report](#)

Author(s): Keith W. Anderson, Jeff Uhlmeyer, Linda Pierce.

Originator: Washington State Transportation Center (TRAC)

Publish Date: January, 2007

666.1: Performance of a Portland Cement Concrete Pavement

[Abstract](#) [Full Report](#)

Author(s): Keith W. Anderson, Jeff Uhlmeyer, Linda Pierce.

Originator: Washington (State). Dept. of Transportation. Materials Laboratory.

Publish Date: April, 2007

665.1: Homeless Student Transportation Project Evaluation

[Abstract](#) [Full Report](#)

Author(s): Daniel Carlson, Sheri Reder, Nathalie Jones, Andrea Lee.

Originator: Washington State Transportation Center (TRAC)

Publish Date: December, 2006

664.1: Reliability-Based Design of Seismic Retrofit for Bridges

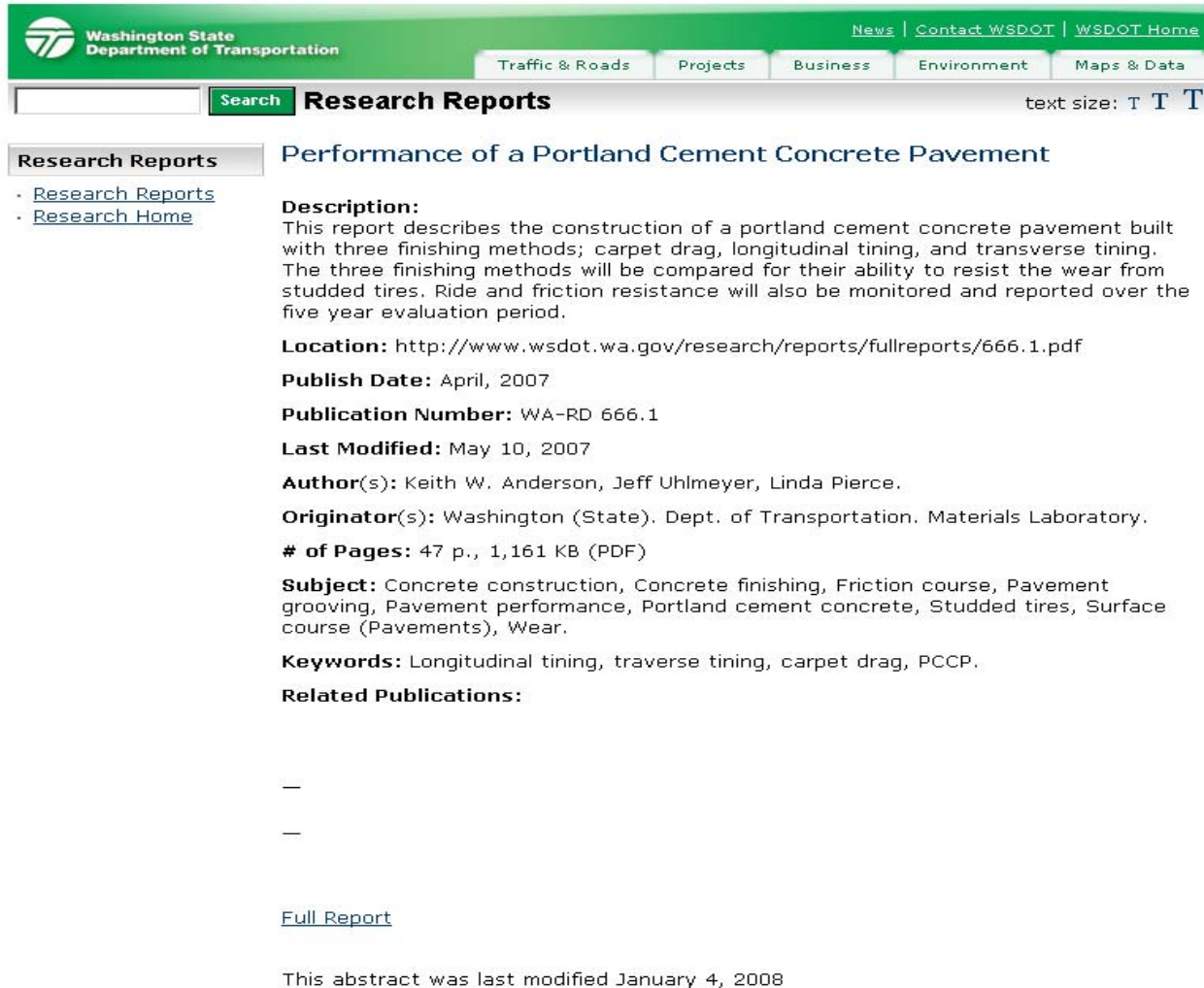
[Abstract](#) [Full Report](#)

Author(s): Kenneth J. Fridley, Zhiyuan Ma.

Originator: University of Alabama. Dept. of Civil, Construction and Environmental Engineering.

Publish Date: February, 2007

Indexing Web-based Documents



The screenshot shows the Washington State Department of Transportation website. The header includes the WSDOT logo and navigation links for News, Contact WSDOT, and WSDOT Home. Below the header is a search bar and a menu with categories: Traffic & Roads, Projects, Business, Environment, and Maps & Data. The search results section is titled 'Research Reports' and features a search box and a 'Search' button. The main content area displays the title 'Performance of a Portland Cement Concrete Pavement' with a list of links for 'Research Reports' and 'Research Home'. The report details include a description of the construction and evaluation process, location, publish date (April, 2007), publication number (WA-RD 666.1), last modified date (May 10, 2007), author(s) (Keith W. Anderson, Jeff Uhlmeyer, Linda Pierce), originator(s) (Washington (State). Dept. of Transportation. Materials Laboratory), number of pages (47 p., 1,161 KB (PDF)), subject (Concrete construction, Concrete finishing, Friction course, Pavement grooving, Pavement performance, Portland cement concrete, Studded tires, Surface course (Pavements), Wear), and keywords (Longitudinal tining, traverse tining, carpet drag, PCCP). There are also sections for 'Related Publications' and 'Full Report'.

Washington State
Department of Transportation

News | Contact WSDOT | WSDOT Home

Traffic & Roads Projects Business Environment Maps & Data

Search **Research Reports** text size: T T T

Research Reports

- [Research Reports](#)
- [Research Home](#)

Performance of a Portland Cement Concrete Pavement

Description:
This report describes the construction of a portland cement concrete pavement built with three finishing methods; carpet drag, longitudinal tining, and transverse tining. The three finishing methods will be compared for their ability to resist the wear from studded tires. Ride and friction resistance will also be monitored and reported over the five year evaluation period.

Location: <http://www.wsdot.wa.gov/research/reports/fullreports/666.1.pdf>

Publish Date: April, 2007

Publication Number: WA-RD 666.1

Last Modified: May 10, 2007

Author(s): Keith W. Anderson, Jeff Uhlmeyer, Linda Pierce.

Originator(s): Washington (State). Dept. of Transportation. Materials Laboratory.

of Pages: 47 p., 1,161 KB (PDF)

Subject: Concrete construction, Concrete finishing, Friction course, Pavement grooving, Pavement performance, Portland cement concrete, Studded tires, Surface course (Pavements), Wear.

Keywords: Longitudinal tining, traverse tining, carpet drag, PCCP.

Related Publications:

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[Full Report](#)

This abstract was last modified January 4, 2008



Information Architecture

- Namespace (definition)
 - The set of unique names used to identify objects within a well-defined domain. It is the same as a taxonomy but may follow different design rules governed by technology requirements

- WSDOT Information Architecture classifying:
 - Multiple Taxonomies based on content type and audience
 - Intranet and Public Web Content, Web Services and Web-based Applications, MS SQL Reporting Services Reports (Taxonomy)
 - Informs the development of WSDOT Ontology

- Goals
 - Intuitive structure that promotes reusability and findability
 - Term consistency between Web Applications, Web Content and Report Services, Enterprise Content Management (ECM) Systems

Other Information Organization Projects

- **Ontology Development**
 - For Service-Oriented Architecture Application Development
 - Consistent terms for data sharing and transfer (messaging) between applications

- **Controlled Vocabulary Consulting**
 - Reviewing Controlled Lists used in Applications including ECMs
 - Evaluate for approved or commonly used agency terminology
 - Promote use of Common and Centrally maintained lists
 - Develop/Review terms and naming conventions used in-house Database and Application Development

- **Image and Video Indexing Needs Assessment**
 - Project being lead by University of Washington Information School